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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,445	08/30/2001	Toshimichi Kurihara	14872	7920

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EXAMINER	
SCHILLINGER, LAURA M	
ART UNIT	**PAPER NUMBER**
2813	

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06/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
09942445	8/30/01	KURIHARA ET AL.	14872

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Laura M. Schillinger	
ART UNIT	**PAPER**
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Commissioner for Patents

The new appeal brief dated 12/11/06; the reply brief dated 12/29/06; and request for an oral hearing dated 12/29/06 are hereby acknowledged. A copy of the Examiner's Answer in response to the Appeal Brief is included as well.

Laura M Schillinger
Primary Examiner
Art Unit: 2813

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Commissioner for Patents
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/942,445
Filing Date: August 30, 2001
Appellant(s): KURIHARA ET AL.

Scully Scott Murphy & Presser
For Appellant

EXAMINER'S ANSWER

12-29-06

This is in response to the appeal brief filed ~~10-5-04~~ appealing from the Office action mailed 3-31-04.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

This appeal involves claims 1, 3, 5, 7, 9, 11, 13, 15, 22, and 24.

Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 19-21 are withdrawn from consideration as not directed to the elected invention.

Claims 2, 4, 6, 8, 10, 12, 14, 16, 18, 23, and 25 have been canceled.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 5, 7, 9, 11, 13, 15, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Switky et al. (5,270,262) in view of Yamauchi (5,266,739). Switky discloses a semiconductor device comprising: a radiating plate (Figs.1-5 el.14); a semiconductor chip (el.16) bonded onto the radiating plate (Figs.1, 5); a rectangular-shaped resin wall (el.15; Fig.5) which surrounds the semiconductor chip bonded to the radiating plate, said rectangular-shaped resin wall having a first pair of opposing sides and a second pair of opposing sides (Fig.5); a conductive member (el. 13) extending through one of the first pair of opposing sides of the resin wall and retained by the resin wall (Fig.3C), said conductive member is electrically connected (el.18) to the semiconductor chip; and a lid (el.11) bonded to an upper end of the resin wall, said semiconductor chip is sealed in a space enclosed by said radiating plate, said resin wall

and said lid (Fig.2), said radiating plate extends outward of said second pair of opposing sides of said resin wall (Fig.2). However, Switky does not disclose a lid comprising resin. Yamauchi discloses a resin lid (Figs.1-5 el.16). Therefore, it would have been obvious to a person skilled in the art at the time of the invention to use the resin lid and resin wall bonding of Yamauchi with the semiconductor device of Switky in order to form the walls and lid in the same step using the same material, and thereby save time and money **[claim 1]**.

Switky also discloses wherein a resin wall (el.12) is fitted to protruding parts or recessed parts provided on the radiating plate (Fig.3B) **[claim 3]**; wherein the recessed parts are provided on the opposed side parts of the radiating plate, the protruding parts are protruded and provided on the inner surfaces of the recessed parts, and the lower end part of the resin wall is buried in the recessed parts (Fig.3B) **[claim 5]**; wherein holes (el.23) are provided in the conductive member and said holes are located in the outside positions of the resin wall (el.15) on the conductive member (Fig.5; col.6 lines 21-23) **[claim 7]**; wherein first holes (el.23) are provided in the conductive member and said first holes are located in the outside positions of the resin wall (el.15) on the conductive member (Fig.5; col.6 lines 21-23), and second holes or cutouts are provided in the region extending through the resin wall of the conductive member (Fig.8) **[claim 9]**; wherein the first holes are arranged so as to overlap the space area between the second holes or cutouts when the conductive member is seen in the resin wall (el. 15) direction from the outside of the resin wall (Figs.2,5,7) **[claim 11]**; wherein a stepped part to be fitted to the inner periphery of the resin wall is provided on the lid (Fig.2)

[claim 13]; wherein the lid has a vertically plane symmetric shape (Fig.2) **[claim 15]**; wherein the radiating plate has end portions formed integrally at both ends of a center portion of the radiating plate, the lower end of the resin wall (el.15) is bonded to said center portion, and said end portions are exposed through the resin wall (Fig.3B) **[claim 22]**; and wherein said conductive member is broader on the inside of said resin wall (Fig.3B el.15) **[claim 24]**.

(10) Response to Argument

a) Appellant contends on pages 9-10 of appeal brief that Switky (5,270,262) discloses oval-shaped plastic beads 15, rather than the claimed rectangular-shaped resin wall. Examiner disagrees. Fig.5 of Switky shows a partial top view of the leadframe, including the "plastic bead 15," which is formed in a continuous square pattern around the chip pad 17. Fig.1 shows that resin wall (el.12) is formed in a continuous square pattern, and Figs. 2 and 3 show that el.15 is butted up against the outer resin wall el.12 to also form a continuous square pattern. In addition, several citations of Switky in the Abstract, Summary of Invention, and Description of the Invention (col.4 lines 20-29) disclose the plastic bead as a resilient or elastic O-ring bead that surrounds the chip pad, which implies a continuous pattern of the resin material completely surrounding the chip and chip pad.

b) Appellant contends on page 10 of appeal brief that Switky fails to teach a conductive member extending outward of a first pair of opposing sides [of the rectangular-shaped resin wall] and a radiating plate extending outward of the second pair of opposing sides [of the rectangular-shaped resin wall]. Appellant's argument b) is

based upon argument a) that no rectangular-shaped resin wall is disclosed. Examiner disagrees. Figs. 2 and 3 clearly show that the conductive members (el.13) extend through two opposing sides of the resin wall (el.15). Said figures also disclose that the resin wall (el.15) is sitting atop the radiating plate (el.14); therefore, the radiating plate extends outward of the opposite two opposing sides of the resin wall.

c) Appellant contends on pages 10-11 of appeal brief that Yamauchi (5,266,739) teaches only a resin lid and no other claimed elements, and that it is unlikely that one of ordinary skill in the art would look to Yamauchi; Appellant also argues that the combination of Switky and Yamauchi would fail to render the claim limitations obvious. Examiner disagrees. Yamauchi teaches a resin lid as required and cited by the final rejected claims. Yamauchi also teaches a resin housing that completely surrounds the device and inner leads (Yamauchi – Fig.1), similar to that of Switky. Since Appellant did not cite any specific reasons why Examiner's combination of Switky and Yamauchi would not be obvious, this argument is considered moot.

d) Appellant contends on page 12 of appeal brief that Switky fails to disclose second holes in the region extending through the resin wall of the conductive member, as recited in claims 9 and 11. Examiner disagrees. As cited in the final rejection, second holes or cutouts provided in the region extending through the resin wall is clearly shown in Fig.8 where the conductive member (el.13) extends from inside the resin wall to outside of the resin wall.

e) Appellant contends on page 12 of appeal brief that Switky fails to disclose a resin wall bonded to the center portion of the radiating plate, or end portions of the

radiating plate exposed through the resin wall. Examiner disagrees. Fig.2 shows a single continuous structure for the radiating plate (el.14). Therefore, the end portions are formed integrally with a center portion of said radiating plate. A theoretical division between the center portion and the end portions could occur anywhere inside the outer edges of the radiating plate. Since the resin wall sits inside of the edges of the radiating plate, the resin wall is disclosed as bonded to the center portion. As already discussed above, the radiating plate is exposed through the resin wall since the resin wall sits atop the radiating plate.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Nema Berezny

Conferees:

Brian Sircus

Carl Whitehead, Jr.